

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 17 FEB 2006

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To:

see form PCT/ISA/220

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/AL2005/000914

International filing date (day/month/year)
24.08.2005

Priority date (day/month/year)
25.08.2004

International Patent Classification (IPC) or both national classification and IPC
B01J19/00, G01N15/14

Applicant
MOLECULAR CYTOMICS LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2005/000914

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2005/000914

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2, 3,6-8, 11,13- 15,19,20,24-27,29-37,41-43,51-59,61,62,65-69,72,73
	No: Claims	1,4,5,9,10,12,16-18,21-23,28,38-40,44-50,60,63,64,70
Inventive step (IS)	Yes: Claims	
	No: Claims	2, 3,6-8, 11,13- 15,19,20,24-27,29-37,41-43,51-59,61,62,65-69,72,73
Industrial applicability (IA)	Yes: Claims	1-73
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

and /or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**Ad Section V: Reasoned statement with regard to novelty, inventive step or
Industrial applicability**

1) Documents

D1...Koh et al. (2002) Langmuir 18: 2459-2462

- 2) The present application relates to a method of immobilising at least one cell from a plurality of cells comprising placing the plurality of cells in functional proximity of a radiation sensitive medium having a first state that does not immobilise cells and a second state that immobilises cells wherein the medium transforms from the first state to the second state upon exposure to radiation, selecting at least one cell to be immobilised and using radiation to transform the medium in the vicinity of said at least one cell.

Further claimed is a device to perform the method.

- 3) The application does not meet the requirements of Art. 33(2)(3) PCT for the following reasons:

D1 describes Poly(ethylene glycol) hydrogel microstructures. Cells were added to a gel precursor solution, the solution was applied to a carrier so to form a uniform fluid layer. Upon UV exposure of the gel through a photomask only those regions which were exposed to the UV light became insoluble. The cells and gel which were not exposed to the UV light could be washed away and the cells entrapped in the hydrogel could be further analysed and/or treated (p. 2460, left col., Fig. 3).

D1 is thus considered novelty destroying for claims 1, 4, 5, 9, 10, 12, 16-18, 21-23 and 28.

While D1 does not explicitly disclose a device for immobilising cells as defined in claim 38, the method described in D1 cannot be performed without such device. Claims 38-40, 44-50, 60, 63, 64 and 70 are thus also considered to be anticipated by D1.

**WRITTEN OPINION OF THE
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AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IL2005/000914

Dependent claims 2, 3, 6-8, 11, 13-15, 19, 20, 24-27, 29-37, 41-43, 51-59, 61, 62, 65-69, 72 and 73 which describe further features of the method and the device appear to be common in the technical field and are thus considered obvious for the skilled person.

Ad Section VIII: Certain observations on the international application

The present set of claims does not meet the requirements of Art. 6 PCT for the following reasons:

Independent claims 1 and 38 which are directed to the method and to a device for immobilising cells are very broadly formulated and do not contain all the essential features necessary to perform the invention. These claims are therefore objected to under Art. 6 PCT.